



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,894	01/08/2004	Laurence W. Bassett	CUNO-170.3	8174
45017	7590	09/12/2005	EXAMINER	
CUNO INCORPORATED 400 RESEARCH PARKWAY P. O. BOX 1018 MERIDEN, CT 06450-1018			SAVAGE, MATTHEW O	
			ART UNIT	PAPER NUMBER
			1724	

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/753,894

Applicant(s)

BASSETT ET AL.

Examiner

Matthew O. Savage

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 43,45-54 and 56-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43, 45-54, and 56-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

The disclosure is objected to because of the following informalities.

With respect to the section "Cross Reference to Related Applications", the status of each listed application should be indicated. It is suggested that the section be amended as follows: -- The subject application is a divisional of 10/208,492 filed July 30, 2003, now abandoned, which is a continuation of U.S. Application Serial No. 09/553,982 filed April 20, 2000, now U.S. Patent 6,458,269, and are hereby incorporated by reference. --.

Appropriate correction is required.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The limitations added to lines 6-8 of claims 43 and 54 lack antecedence in the specification. It is suggested the phrase -- that are axially spaced from the body portion and face toward the body portion in a generally axial direction -- be inserted on line 18 of page 11 of the specification after "64" to obviate the objection.

The limitations on lines 9-11 of claims 43 and 54 lack antecedence in the specification. It is suggested that the phrases -- Each of the lugs has engagement surfaces which face away from the body portion. At least one of the engagement surfaces defines a keyed surface formation including at least one tooth or protrusion axially extending from remaining portions of the engagement surfaces relative to the neck which enables the cartridge to mate with a compatible reception assembly. -- be

Art Unit: 1724

inserted on line 20 of page 12 of the specification after "valve member 26" to obviate the objection.

The limitations of claims 46 and 57 lack antecedence in the specification. It is suggested that the phrase -- substantially similar to or -- be inserted on line 13 of page 13 of the specification before "different" to obviate the objection.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 43, 45-54, and 56-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

On line 9 of claim 43 and lines 8-9 of claim 54, "the compatible" lacks antecedent basis. It is suggested that "the compatible" be changed to --a compatible--.

On line 10 of claims 43 and 54, "the remaining portions" lack antecedent basis. It is suggested that "the remaining portions" be changed to --remaining portions--.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 43, 45, 46, 48, 51-54, 56, 57, 59, and 62-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,806,240 to Giordano et al in view of U.S. Patent 3,746,171 to Thomsen.

With respect to claims 43 and 54, Giordano et al disclose a filter cartridge 100 (see FIG. 3) including a body portion 110 for enclosing filter media for filtering a fluid, and a neck portion 160 including an inlet port 204 for directing unfiltered fluid into the body portion and an outlet port 206 for directing filtered fluid out of the body portion, the neck portion having at least two lugs 172 depending radially outwardly therefrom, each lug having radial and axial engagement surfaces (e.g., at an upper surface and the radial end surface of the lugs 172) which face away from the body portion, wherein each lug has a cam surface axially spaced from the body portion and facing toward the body portion in a generally axial direction for cooperating with camming ramps 93, 95 on the compatible reception assembly 90, at least one of the engagement surfaces defining a keyed surface formation including at least one tooth or protrusion extending axially from the remaining portions of the engagement surfaces relative to the neck (see the bosses at on the upper surface at the outer radially ends of the lugs 172 in FIGS. 3, 5, and 6) which enables the cartridge to mate with a compatible reception assembly. Giordano et al fail to specify the cam surfaces of the lugs as being inclined. Thomsen, the specification of which is incorporated by reference by Giordano et al (see lines 62-65 of col. 3), discloses a pair of lugs 75 having rounded ends that inherently form inclined cam surfaces (see FIG. 5 of Thomsen. Thomsen suggests that the rounded ends/cam surfaces facilitate insertion of the lugs into the grooves of the associated reception

Art Unit: 1724

assembly. It would have been obvious to have modified the apparatus of Giordano et al so as to have included lugs having inclined cam surfaces as suggested by Thomsen in order to facilitate insertion of the lugs into grooves of an associated reception assembly.

As to claims 45 and 56, Giordano et al disclose each lug 172 as having an engagement surface defining a keyed surface formation (see FIG. 3).

Regarding claims 46 and 57, Giordano et al disclose the keyed surface formation on each lug of the cartridge is substantially similar (see FIG. 3).

Concerning claims 48 and 59, Giordano et al disclose the neck portion as having a pair of diametrically opposed lugs 172 (see FIG. 3).

As to claims 51 and 62, Giordano et al include a keyed surface formation on an axially facing engagement surface of the lug (see FIG. 3).

Regarding claims 52 and 63, Giordano et al include a keyed surface formation on a radially facing engagement surface of the lug (e.g., the convex surface of the 172 lug).

Concerning claims 53 and 64, Giordano et al disclose a first portion of the keyed surface on an axially facing engagement surface of the lug (e.g., the entire upper axial surface) and a second portion of the keyed surface formation as being on a radially facing engagement surface of the lug (e.g., the entire curved radial end surface of the lug).

Claims 49 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giordano et al in view of Thomsen as applied to claims 43 or 54 above, and further in view of Groezinger et al.

With respect to claims 49 and 60, Giordano et al and Thomsen fail to specify the neck portion as having three circumferentially spaced apart lugs, however, Groezinger et al disclose just such an arrangement (see FIGS. 1 and 2 and the lugs 42).

Groezinger et al suggest that such an arrangement increases the strength and stability of the connection between the filter and a reception assembly. It would have been obvious to have modified the combination suggested by Giordano et al and Thomsen so as to have included the three lug arrangement as suggested by Groezinger et al in order to increase the stability and strength of the connection between the filter and reception assembly.

Claims 47, 53, 58, and 61 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O. Savage whose telephone number is (571) 272-1146. The examiner can normally be reached on Monday-Friday, 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Savage
Matthew O Savage
Primary Examiner
Art Unit 1724

mos
September 6, 2005